

AMENDMENTS TO THE CLAIMS:

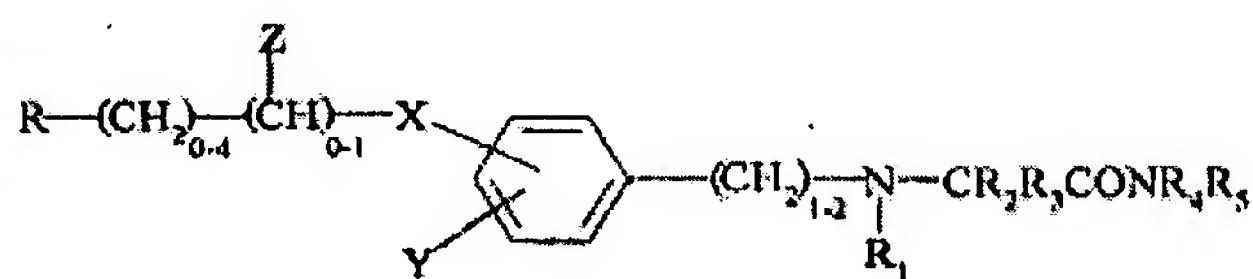
This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

## CLAIMS

1-8 (cancelled)

9 (new): A method for treating urinary tract infection, comprising administering an effective amount of at least one therapeutic agent which is an alpha-aminoamide compound of formula (I),



(I)

wherein: R is a furyl, thienyl, or pyridyl ring or a phenyl ring, optionally substituted by one or two substituents independently selected from halogen, hydroxy, cyano, C1-C6 alkyl, C1-C6 alkoxy or trifluoromethyl; \* Ri is hydrogen or C1-C6 alkyl or C3-C7 cycloalkyl; R<sub>2</sub> and R<sub>3</sub> are independently selected from hydrogen; C<sub>1</sub>-C<sub>4</sub> alkyl, optionally substituted by hydroxy or phenyl, phenyl, the phenyl rings being optionally substituted by one or two substituents independently selected from C<sub>1</sub>-C<sub>6</sub> alkyl, halogen, hydroxy, C1-C6 alkoxy or trifluoromethyl; or R<sub>2</sub> and R<sub>3</sub> taken with the carbon atom which they are linked to, form a C<sub>3</sub>-C<sub>6</sub> cycloalkyl ring; # R<sub>4</sub>, R<sub>5</sub> are, independently, hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl or C<sub>3</sub>-C<sub>7</sub> cycloalkyl; or R<sub>4</sub> and R<sub>5</sub>, taken together with the nitrogen atom they are linked to, form a 5-7 atom saturated heterocyclic ring; X is CH<sub>2</sub>, O, S; dz Z are hydrogen or taken together form a 5-7 saturated or

unsaturated carbocycle or a heterocycle; or isomers, mixtures, and pharmaceutically acceptable salts thereof.

10. (new): The method according to claim 9, wherein the compound is selected from: 2- [ (3-Benzyl-2, 3-dihydro-benzofuran-5-ylmethyl) -amino] -propanamide ; 2- [ (3-Benzyl-2, 3-dihydro-benzofuran-5-ylmethyl) -amino]-N-methyl-propanamide; 2- {3- [2- (2-Fluoro-benzyl)]-2, 3-dihydro-benzofuran-5-ylmethyl}-amino)- propanamide; <BR> <BR> <BR> <BR> 2- {3- [2- (2-Fluoro-benzyl)]-2, 3-dihydro-benzofuran-5-ylmethyl}-amino)-N- methyl-propanamide; 2- {3- [2- (3-Fluoro-benzyl)]-2, 3-dihydro-benzofuran-5-ylmethyl}-amino)- propanamide; <BR> <BR> <BR> 2- 3- [2- (3-Fluoro-benzyl)]-2, 3-dihydro-benzofuran-5-ylmethyl}-amino)-N- methyl- propanamide; 2- [ (3-Phenethyl-2, 3-dihydro-benzofuran-5-ylmethyl)-amino]-propanamide ; 2- [ (3-Phenethyl-2, 3-dihydro-benzofuran-5-ylmethyl)-amino]-N-methyl- propanamide; 2- 3- [2- (2-Fluoro-phenethyl)]-2, 3-dihydro-benzofuran-5-ylmethyl}-amino)- propanamide; 2- 3- [2- (2-Fluoro-phenethyl)]-2, 3-dihydro-benzofuran-5-ylmethyl)-amino)- N-methyl-propanamide ; 2- 3- [2- (3-Fluoro-phenethyl)]-2, 3-dihydro-benzofuran-5-ylmethyl}-amino)- propanamide; <BR> <BR> <BR> <BR> 2- {3- [2- (3-Chloro-phenethyl)]-2, 3-dihydro-benzofuran-5-ylmethyl}-amino)- propanamide; <BR> <BR> <BR> <BR> 2- {3- [2- (3-Fluoro-phenethyl)]-2, 3-dihydro-benzofuran-5-ylmethyl}-amino)- N- methyl-propanamide; 2- [ (3-Phenethyl-2, 3-dihydro-benzopyran-6-ylmethyl) -amino] -propanamide ; 2- [ (4-Phenethyl-2, 3-dihydro-benzoxepin-7-ylmethyl)-amino]-propanamide ; 2- [ (3-Benzyl-2, 3-dihydro-benzothiophen-5-ylmethyl)-amino]- propanamide ; 2- {3- [2- (2-Fluoro-benzyl)]-2, 3-dihydro-benzothiophen-5-ylmethyl}-amino)- propanamide; 2- {3- [2- (3-Fluoro-benzyl)]-2, 3-dihydro-benzothiophen-5-ylmethyl} -amino)- propanamide; 2-[ (3-Phenethyl-2,3-dihydro-benzothiophen-5-ylmethyl)-amino]-propanamide; 2-{3- [2- (2-

Fluoro-phenethyl)]-2,3-dihydro-benzothiophen-5-ylmethyl}-amino)-propanamide ; 2- {3-[2-(3-Fluoro-phenethyl)]-2, 3-dihydro-benzothiophen-5-ylmethyl}- amino)-propanamide ; 2- {3-[2- (3-Fluoro-phenethyl)]-2, 3-dihydro-benzothiophen-5-ylmethyl}- amino)-N-methyl-prop anamide.

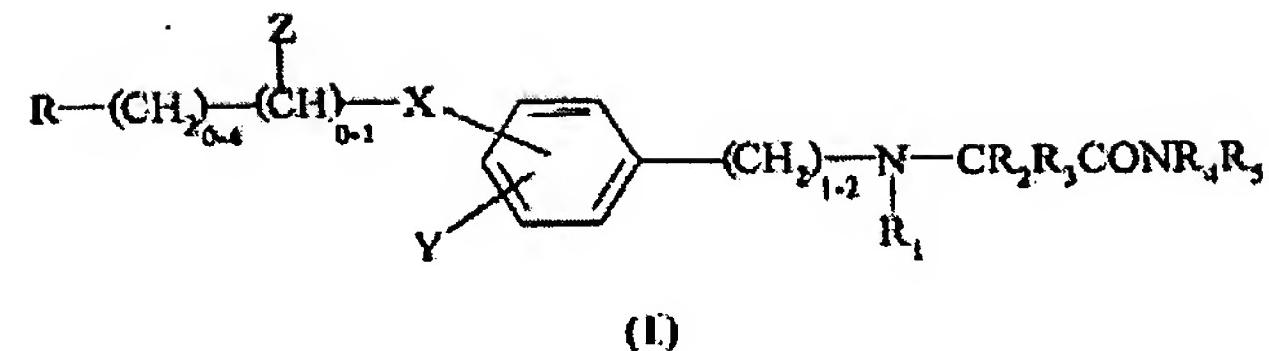
11. (new): The method according to claim 9, wherein the compound is selected from: 2-(4-Phenethyl-benzylamino)-propanamide; 2-(4-Benzylxybenzylamino)-propanamide ; 2- (3-Benzylxybenzylamino)-propanamide ; 2- (4-Benzylthiobenzylamino)-propanamide ; 2- (4-Benzylxybenzylamino)-3-N, N-dimethyl-butanamide ; 2- [4- (2-Methoxybenzyloxy)-benzylamino]-propanamide ; 2- [4- (2-Fluorobenzyloxy)-benzylamino]-propanamide ; 2- [3- (2-Fluorobenzyloxy)-benzylamino]-propanamide ; 2- [4- (2-Fluorobenzyloxy)-benzylamino]-propanamide ; 2- [4- (2-Fluorobenzyloxy)-benzylamino]-2-methyl-propanamide ; 2- [4- (2-Fluorobenzyloxy)-benzylamino]-N-methyl-propanamide ; 2- [3- (3-Fluorobenzyloxy)-benzylamino]-propanamide ; 2- [4- (3-Fluorobenzyloxy)-benzylamino]-propanamide ; 2- [4- (3-Methoxybenzyloxy)-benzylamino]-propanamide ; 2- [4- (3-Cyanobenzyloxy)-benzylamino]-propanamide ; 2- [4- (3-Fluorobenzyloxy)-benzylamino]-propanamide ; 2- [4- (3-Fluorobenzyloxy)-benzylamino]-2-methyl-propanamide ; 2- [4- (3-Fluorobenzyloxy)-benzylamino]-N-methyl-propanamide ; 2- [4- (4-Fluorobenzyloxy)-benzylamino]-propanamide ; 2- [4- (3-Fluorobenzyloxy)-benzylamino]-2-methyl-propanamide ; 2- [4- (2-Chlorobenzyloxy)-benzylamino]-propanamide ; 2- [4- (3-Chlorobenzyloxy)-benzylamino]-propanamide ; 2- (4-Benzylxybenzylamino)-3-hydroxy-propanamide ; 2- [4- (2-Fluorobenzyloxy)-benzylamino]-3-hydroxy-propanamide ; 2- [4- (3-Fluorobenzyloxy)-benzylamino]-3-hydroxy-propanamide ; 2- (4-Benzylxybenzylamino)-3-hydroxy-N-methyl-propanamide ; 2- [4- (2-Fluorobenzyloxy)-benzylamino]-3-hydroxy-N-methyl-

propanamide ; 2- [4- (3-Fluorobenzylloxy)-benzylamino]-3-hydroxy-N-methyl-propanamide ; 2- [4- (2-Chlorobenzylloxy)-benzylamino]-3-hydroxy-N-methyl-propanamide ; 2- [4- (3-Cyanobenzylloxy)-benzylamino]-3-hydroxy-N-methyl-propanamide ; 2- [4- (3-Cyanobenzylloxy)-benzylamino]-2-methyl-3-hydroxy-N-methyl- propanamide; 2- [4- (3-Chlorobenzylloxy)-phenylethylamino]-propanamide ; 2- {4- [2- (3-Fluorophenyl)-ethoxy] benzylamino}-propanamide ; 2- {4- [2- (3-Fluorophenyl)-ethyl] benzylamino}-propanamide ; 2- [N- (4-Benzyloxybenzyl)-N-methylamino]-propanamide ; 2- 4- [(3-Chlorobenzylloxy)-phenylethyl]-amino}-propanamide ; 2- [4- Benzylthiobenzylamino]-propanamide ; 2- [4- (2-Fluorobenzylthio)-benzylamino]-propanamide ; 2- [4- (3-Fluorobenzylthio)-benzylamino]-propanamide ; 2- [4- (3-Phenylpropyloxy)-benzylamino]-propanamide ; 2- [4- (4-Phenylbutyloxy)-benzylamino]-propanamide ; 2- [4- (5-Phenylpentyloxy)-benzylamino]-propanamide ; 2- (4-Benzylamino)-3-phenyl-N-methyl-propanamide ; 2- (4-Benzyloxybenzylamino)-3-hydroxy-N-methyl-butanamide ; 2- (4-Benzyloxybenzylamino)-3-methyl-N-methyl-butanamide ; 2- (4-Benzylamino)-2-phenyl-acetamide ; 2- [4- (2-Fluorobenzylloxy)-benzylamino]-2-phenyl-acetamide ; 2- [4- (3-Fluorobenzylloxy)-benzylamino]-2-phenyl-acetamide ; 2- [4- (2-Fluorobenzylloxy)-benzyl-N-methylamino]-2-phenyl-acetamide ; 2- [4- (3-Fluorobenzylloxy)-benzyl-N-methylamino]-2-phenyl-acetamide ; 2- [4- (3-Chlorobenzylloxy)-benzylamino]-2-phenyl-acetamide ; 2- [4- (2-Fluorobenzylloxy)-benzylamino]-2- (2-fluorophenyl)-acetamide ; 2- [4- (2-Fluorobenzylloxy)-benzylamino]-2- (3-fluorophenyl)-acetamide ; 2- [4- (3-Fluorobenzylloxy)-benzylamino]-2- (3-fluorophenyl)-acetamide ; 2- [4- (3-Chlorobenzylloxy)-benzylamino]-2- (3-fluorophenyl)-acetamide ; 2- (4- (2-Thienyloxy)-benzylamino)-propanamide.

12. (new): The method of claim 9, wherein said lower urinary tract disorders are overactive bladder (OAB), prostatitis and prostadynia, interstitial cystitis, benign prostatic hyperplasia and urinary incontinence as the consequence of the above pathologies.

13. (new): The method of claim 9, wherein the  $\alpha$ -aminoamides are (S)- (+)-2- [3- (2-fluorobenzylxy)-benzylamino]-propanamide ; (S)- (+)-2- [4- (2- <BR> <BR> <BR> <BR> fluorobenzylxy)-benzylamino]-propanamide, (S)- (+)-2- [4- (2-fluorobenzylxy)-<BR> <BR> <BR> <BR> benzylamino] -N-methyl-propanamide, (S)- (+)-2- [3- (3- fluorobenzylxy)-<BR> <BR> <BR> <BR> <BR> benzylamino] -propanamide, (S)- (+)-2- [4- (3- fluorobenzylxy)-benzylamino]- propanamide, (R)-2- (4- Benzyloxybenzylamino)-3-phenyl-N-methyl- propanamide; (2R, 3S)-2- (4-Benzylxybenzylamino)-3-hydroxy-N-methyl- butanamide; (S)- (+)-2- [4- (3-fluorobenzylxy)-benzylamino]- N-methyl- propanamide, (S)- (+)-2- (4-phenethyl-benzylamino)- propanamide, (R)- (-)-2- (4- benzyloxy-benzylamino)-3-N, N-dimethyl-butanamide, (S)- (+)-2- (4- benzylthiobenzylamino) - propanamide, and 2- [ (3-phenethyl-2, 3-dihydro- benzofuran-5- ylmethyl)-amino]-N-methyl-propanamide and (2R/3'S, R)-2- [ (3- phenethyl-2, 3-dihydro-benzo furan-5-ylmethyl)-amino]-N-methyl- propanamide, 2- {3- [2- (2-fluoro-phenethyl)]-2, 3-dihydro- benzothiophen-5- ylmethyl}-amino)-propanamide, 2- {3- [2- (3- Fluoro-phenethyl)]-2, 3-dihydro- benzothiophen-5-ylmethyl}- amino)-propanamide, (2R/3'S, R)-2- {3- [2- (2- fluoro- phenethyl)]-2, 3-dihydro-benzothiophen-5-ylmethyl}-amino)- propanamide, (2R/3'S, R)-2- {3- [2- (3-Fluoro-phenethyl)]-2, 3-dihydro- benzothiophen-5-ylmethyl}-amino)-propanamide.

14. (new): An  $\alpha$ -aminoamide compound of formula (I),



wherein: R is a furyl, thienyl, or pyridyl ring or a phenyl ring, optionally substituted by one or two substituents independently selected from halogen, hydroxy, cyano, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy or trifluoromethyl; R<sub>1</sub> is hydrogen or C<sub>1</sub>-C<sub>6</sub> alkyl or C<sub>3</sub>-C<sub>7</sub> cycloalkyl ; R<sub>2</sub> and R<sub>3</sub> are independently selected from hydrogen; C<sub>1</sub>-C<sub>4</sub> alkyl, optionally substituted by hydroxy or phenyl, phenyl, the phenyl rings being optionally substituted by one or two substituents independently selected from C<sub>1</sub>-C<sub>6</sub> alkyl, halogen, hydroxy, C<sub>1</sub>-C<sub>6</sub> alkoxy or trifluoromethyl; or R<sub>2</sub> and R<sub>3</sub>, taken with the carbon atom which they are linked to, form a C<sub>3</sub>-C<sub>6</sub> cycloalkyl ring; R<sub>4</sub>, R<sub>5</sub> are, independently, hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl or C<sub>3</sub>-C<sub>7</sub> cycloalkyl ; or R<sub>4</sub> and R<sub>5</sub>, taken together with the nitrogen atom they are linked to, form a 5-7 atom saturated heterocyclic ring; X is CH<sub>2</sub>, O, S; # Y, Z taken together form a dihydrobenzofuran or dihydrobenzothiophen or a dihydrobenzo (thio) pyran or a tetrahydrobenz (thio) oxepin heterocycle, isomers, mixtures, and pharmaceutically acceptable salts thereof.

15. (new): The compound according to claim 14, selected from: 2- [ (3-Benzyl-2, 3-dihydro-benzofuran-5-ylmethyl)-amino]-propanamide ; 2- [ (3-Benzyl-2, 3-dihydro-benzofuran-5-ylmethyl)-amino]-N-methyl- propanamide; 2- 3- [2- (2-Fluoro-benzyl)]-2, 3-dihydro-benzofuran-5-ylmethyl}-amino)- propanamide; <BR> <BR> 2- 3- [2- (2-Fluoro-benzyl)]-2, 3-dihydro-benzofuran-5-ylmethyl}-amino)-N- methyl-propanamide; 2- {3- [2- (3-Fluoro-benzyl)]-2, 3-dihydro-benzofuran-5- ylmethyl}-amino)- propanamide; 2-{3-[2-(3-Fluoro-benzyl)]-2, 3-dihydro-benzofuran-5-ylmethyl}-amino)-N- methyl-propanamide;

2- [ (3-Phenethyl-2, 3-dihydro-benzofuran-5-ylmethyl)-amino]- propanamide ; 2- [ (3-Phenethyl-2, 3-dihydro-benzofuran-5- ylmethyl)-amino]-N-methyl- propanamide; 2-{3-[2-(2-Fluoro- phenethyl)]-2, 3-dihydro-benzofuran-5-ylmethyl} -amino)- propanamide; <BR> <BR> 2- {3-[2-(2-Fluoro-phenethyl)]-2, 3- dihydro-benzofuran-5-ylmethyl}-amino)- N-methyl-propanamide ; 2- {3- [2- (3-Fluoro-phenethyl)]-2, 3-dihydro-benzofuran-5- ylmethyl}-amino)- propanamide; 2- 3- [2- (3-Chloro- phenethyl)]-2, 3-dihydro-benzofuran-5-ylmethyl}-amino)- propanamide; <BR> <BR> 2- {3- [2- (3-Fluoro-phenethyl)]-2, 3- dihydro-benzofuran-5-ylmethyl}-amino)- N-methyl-propanamide; 2- [ (3-Phenethyl-2, 3-dihydro-benzopyran-6-ylmethyl)-amino]- propanamide ; 2- [ (4-Phenethyl-2, 3-dihydro-benzoxepin-7- ylmethyl) -amino] -propanamide ; 2- [ (3-Benzyl-2, 3-dihydro- benzothiophen-5-ylmethyl)-amino]-propanamide ; 2- {3- [2- (2- Fluoro-benzyl)]-2, 3-dihydro-benzothiophen-5-ylmethyl}-amino)- propanamide; 2- {3- [2- (3-Fluoro-benzyl)]-2, 3-dihydro- benzothiophen-5-ylmethyl}-amino)- propanamide; 2- [ (3- Phenethyl-2, 3-dihydro-benzothiophen-5-ylmethyl)-amino]- propanamide ; 2- 3- [2- (2-Fluoro-phenethyl)]-2, 3-dihydro- benzothiophen-5-ylmethyl}- amino) -propanamide; 2-{3-[2-(3- Fluoro-phenethyl)]-2, 3-dihydro-benzothiophen-5-ylmethyl}- amino)-propanamide; 2- {3- [2- (3-Fluoro-phenethyl)]-2, 3- dihydro-benzothiophen-5-ylmethyl}- amino) -N-methyl- propanamide; or isomers, mixtures, and pharmaceutically acceptable salts thereof.

16. (new): A pharmaceutical composition comprising a pharmaceutically acceptable excipient and, as an active agent, an effective amount of a according to claim 14.